

### **ABSTRACT OF THE DISCLOSURE**

The invention provides a radiation sensor including a housing, an attenuator with at least one cavity for attenuating optical radiation, and a detector, as well as an optical attenuator including an attenuator body an entrance with one multi-stage input opening or plural input openings, and means for transferring radiation inside of the attenuator body and then to an detector. The invention further provides methods for using the radiation sensor or the optical attenuator.